

REMARKS

This application has been reviewed in light of the Office Action dated March 4, 2005. Claims 1 and 4-18 are presented for examination. Claims 2 and 3 have been canceled, without prejudice or disclaimer of subject matter. Claim 1 has been amended to define more clearly what Applicants regard as their invention, and Claims 4, 6, 10, and 14-17 have been amended as discussed below. In addition, all of the claims have been amended to delete reference characters. Claims 1 and 10 are in independent form. Favorable reconsideration is requested.

Applicants note with appreciation the indication that Claims 10-13 would be allowable if rewritten so as not to depend from a rejected claim, and with no change in scope. Since the latter claims have been so rewritten, they are now believed to be in condition for allowance.

The Examiner has objected to Claims 3 and 16 for informalities. Claim 16 has been amended in response to the objection. The objection to Claim 3 has been rendered moot by the cancellation thereof.

Claims 4 and 6 have been amended to depend from Claim 1, due to the cancellation of Claims 2 and 3. Claims 14-17 have been amended to correct improper multiple dependencies.

Claims 1-5 and 15-18 were rejected under 35 U.S.C. § 102(b) as being anticipated by U.S. Patent No. 6,273,406 (“Miyamoto”). Claims 1-6, 8, 9, 14, and 16-18 were rejected under 35 U.S.C. § 102(e) as anticipated by U.S. 6,622,996 (“Mayerbock”). Claims 6-9 were rejected under 35 U.S.C. § 103(a) as being obvious over Miyamoto in

view of U.S. Patent No. 5,516,083 (“Sprang”). Claim 7 was rejected as obvious over Mayerbock in view of Sprang.

Claim 1 is directed to a hydroelastic joint for assembling two pieces of a structure and for damping vibrations transmitted between each piece, the joint being suitable for assembly of ground contact members to a main structure of a vehicle. Claim 1 recites, *inter alia*, that the joint includes an intermediate reinforcement **2** disposed between first **6** and second **24** elastically deformable elements. The first and second elastically deformable elements adhere on the intermediate reinforcement **2**, and the second elastically deformable element adheres on the internal reinforcement. The intermediate reinforcement **2** and internal reinforcement **3** each include a cylindrical central portion with a constant cross-section.

In Applicants’ view, none of the cited references teaches or suggests a hydroelastic joint having an intermediate reinforcement and internal reinforcement each having a cylindrical central portion with a constant cross-section, as recited in Claim 1. This feature, among other advantages, allows for easier assembly of the components of the joint, which in turn results in lower manufacturing costs.

Miamoto relates to a liquid-encapsulated bushing in which a bearing 113 made of synthetic resin is disposed between an intermediate tube 112 and an internal support shaft 111 (see col. 8, line 6; Fig 26; see also col. 4, lines 1-15; Fig. 4). The function of the bearing 113 is to allow a smooth relative rotation of the intermediate reinforcement 112 and the internal reinforcement 111. Hence, Miamoto’s bearings act as rotational bearings, rather than as a hydroelastic spring, as recited in Claim 1. Moreover, one of ordinary skill in the art would understand that Miamoto’s synthetic resin, in order to

be suitable for a rotational bearing, would be a hard resin, with a low friction and without substantial elastic deformability. Rubber boots 120 also are disposed between the intermediate reinforcement 112 and the internal reinforcement 111. However, the function of the boots 120 is to prevent the deposition of dust (see col. 8, lines 43-47), rather than to act as a hydroelastic spring.

Miamoto further describes that the internal support shaft 111 has a spherical central portion 111₂ (see col. 8, lines 3 and 4; Figs. 25 and 26), rather than a cylindrical portion with a constant cross-section, as claimed. Hence, Miamoto is not seen as teaching or suggesting an intermediate reinforcement and internal reinforcement each having a cylindrical central portion with a constant cross-section, as recited in Claim 1.

Accordingly, Claim 1 is believed to be patentable over Miamoto.

Mayerbock relates to a hydraulically-damping rubber bearing. The bearing has an intermediate tubular part 1 and an internal tubular part 3. The central portion of the internal tubular part 3 is crowned or spherical, rather than having a constant cross-section. Similarly, the central portion of the intermediate tubular part 1 is crowned (see col. 2, lines 50-53; Fig. 1-2). Hence, Mayerbock is not seen as teaching or suggesting an intermediate reinforcement and internal reinforcement each having a cylindrical central portion with a constant cross-section, as recited in Claim 1.

Accordingly, Claim 1 is believed to be patentable over Mayerbock.

Sprang, which has been cited with respect to Claims 6-9, relates to a sleeve rubber spring for mounts in a vehicle, in which a rubber body is arranged between an inner tube and an outer tube. The rubber body has at least two chambers, which are filled with a fluid damping agent and connected to one another. The material of the rubber body 3 is

connected to the outer tube 2 in a non-positive manner (col. 2, lines 55-58). In other words, the sleeve 7 provides radial rigidity to the rubber body 3, at the level of its axial ends (see left part of Fig. 1), so that the spring can be assembled by force-fixing the outer tube 2 on the rubber body 3, and that the material of the rubber body 3, which extends between the outer tube 2 and the sleeve 7, ensures the sealing of the chambers 4, 5.

As a result of this force-fixing assembly, the material of the rubber body 3, which extends between the outer tube 2 and the sleeve 7, is compressed with a very high force and therefore does not act as a spring. Indeed, any movement between tube 2 and sleeve 7 would jeopardize the sealing of the chambers filled with fluid. The sleeve 7 therefore is not thought to be an intermediate reinforcement in the sense of claim 1, because it is not disposed between two elastically deformable elements.

Hence, in Applicants' view, Sprang does not teach or suggest the claimed arrangement of an intermediate reinforcement disposed between two elastically deformable elements, in the manner of Claim 1. *A fortiori*, Sprang does not disclose a hydroelastic joint having an intermediate reinforcement and internal reinforcement each having a cylindrical central portion with a constant cross-section, as recited in Claim 1

For at least these reasons, Sprang does not remedy the deficiencies of Miamoto and Mayerbock with respect to the features of Claim 1. Accordingly, Claim 1 is believed to be patentable over Sprang, regardless of how it hypothetically may be combined with Miamoto or Mayerbock.

The other claims in this application are each dependent from one or another of the independent claims discussed above and are therefore believed patentable for the same reasons. Since each dependent claim is also deemed to define an additional aspect of

the invention, however, the individual reconsideration of the patentability of each on its own merits is respectfully requested.

In view of the foregoing amendments and remarks, Applicants respectfully request favorable reconsideration and early passage to issue of the present application.

Applicants' undersigned attorney may be reached in our New York office by telephone at (212) 218-2100. All correspondence should continue to be directed to our below listed address.

Respectfully submitted,


John D. Murnane
Registration No. 29,836
(212) 218-2527

Carl B. Wischhusen
Registration No. 43,279
(212) 218-2582

Attorneys for Applicants

FITZPATRICK, CELLA, HARPER & SCINTO
30 Rockefeller Plaza
New York, New York 10112-3801
Facsimile: (212) 218-2200

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